

Introduction / Comments:

This ladder keeper is designed to mount into the standard and high roof models of the Nissan LCV. The ladder keeper will accommodate the following step ladder sizes: 4', 5', 6', & 7'
This ladder rack will not accommodate the "Little Giant" series ladders (or similar models).

Parts List

#	Qty	P/N	Part Description
1	1	40375-G	Base Rail Weldment
2	1	39496-G	Front Rail
3	1	30253-0	Ladder Snubber
4	1	30254-0	Ladder Stop
5	1	30241-0	Keeper Assembly
6	1	30261-0	Gas Spring Assembly
7	1	30244-0	Ladder Keeper
8	1	30263-0	Stop Weldment
9	1	39488-G	Mounting Angle, Nissan
10	5	40466-G	Bracket, Roof Mounting

- PRECAUTIONS -



Please read and understand all instruction and warnings before assembly, installing or using this product.



Substituting Adrian Steel specified fasteners for assembly and/or installation will void your product warranty.

To avoid damaging the vehicle always use drill stops when drilling any installation holes.

All holes drilled into vehicle should have the raw metal edges sealed with a self-etching primer to resist corrosion and potential fastener point failure. Installation holes should be sealed with silicon or butyl sealant to prevent exhaust fumes from entering the vehicle.

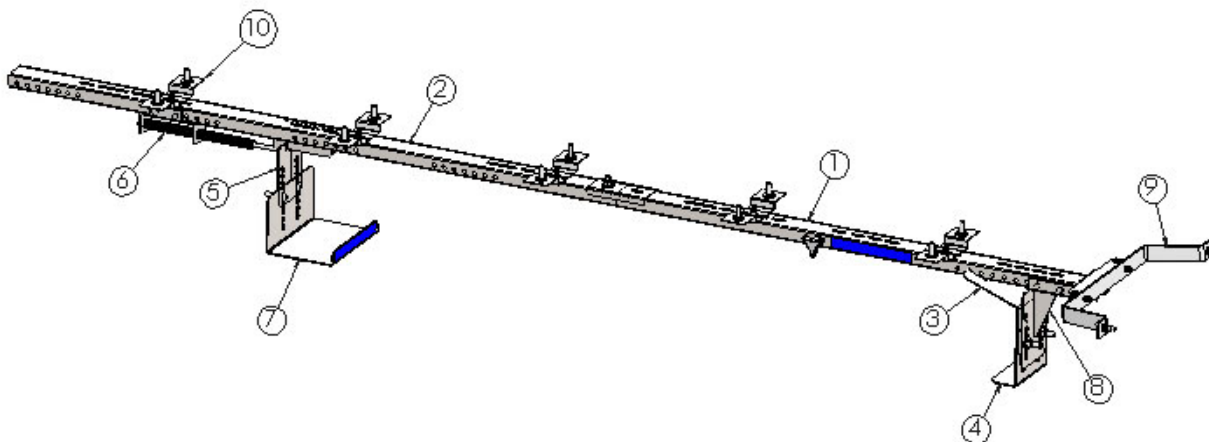
When installing PLUSNUTS, make sure you use the correct drill bit with a drill stop.

Inspect for fuel tank, fuel lines, brake lines, high voltage batteries and electrical lines prior to drilling to avoid damaging critical vehicle systems or injury to installer during the installation process!

All fasteners used in the installation of this product should be tightened to the torque(s) specified in these instructions.

The use of air impact tools can over-torque fasteners and cause fastener failure.

These instructions should be kept with the vehicle.



**LKLCV LADDER KEEPER
NISSAN VAN HIGH ROOF**

Basic Tools Needed for Most Installations

Electric Drill, Drill Bits (w/stops)
Ratchet, Sockets, and/or Wrenches
Plusnut Setting Tools (pneumatic &/or manual)
Misc. Screwdrivers
Misc Allen Wrenches
Torque Wrench
Measuring Tape, Safety Glasses

Additional tools may be need for this installation and they will be identified in the steps that follow.

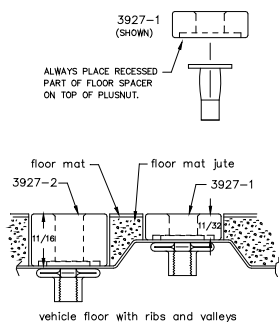
Installation and/or Assembly Fasteners

BAG39243

Qty	P/N	Part Description
2	FAS0052	Plusnut, 1/4-20UNC PB DC
3	FAS0067	Washer, Flat, 1/4"ID
2	FAS0073	Screw, HexHd, 1/4-20UNC x 1.25" G5
11	FAS0090	Nut, Nylock, 5/16-18UNC
6	FAS0104	Washer, Flat, 3/8"ID, ZN
29	FAS0112	Washer, Flat, 5/16"ID, ZN
4	FAS0244	Screw, HexHd, 5/16-18 x 3", SS, G5
5	FAS0110	Nut, Nylock, 3/8-16SS
1	FAS0572	Screw, BHCK, 3/8-16 x 1, ZN
7	FAS0668	Screw, BHCS, 5/16-16 x 3/4", ZN
10	FAS0727	Screw, BHCS, M8-1.25 x 30 SST
1	16274-0	Hand Knob, Threaded
1	22200-0	PLUSNUT TOOL
4	FAS0577	Screw, BHCS, 3/8-16UNC x 1.5" lg"
1	FAS0080	Screw Hex Hd, 1/4-20x2.00 Zi Plate Gr 8

If your vehicle contains carpet or a rubber floor mat you will need to prepare the mounting location.

Position the product to be installed into the vehicle and once your are satisfied with the mounting locations, mark the mounting locations. Using a 1-3/16" diameter carpet cutter (P/N: 31183-0). Select the appropriate floor spacers as shown in the illustration to the left. Set those aside for use later into the installation process.



Using the correct drill bit size for the selected plusnut (see listing at right), drill the mounting holes in the vehicle sheet metal to prepare for installing the plusnuts.

If you are thru-bolting at any of the locations simply drill a hole that is 1/16" larger than the bolt size(s) for those locations.

Once you have drilled the holes into the vehicle, the raw metal edges should be sealed using a self-etching primer to resist corrosion and potential fastener point failure.

- PRECAUTIONS -





 **CAUTION** 
**THE USE AIR IMPACT TOOLS CAN
OVER-TORQUE FASTENERS AND
CAUSE FASTENER FAILURE!**



 **CAUTION** 
**ALL INSTALLATION HOLES SHOULD BE SEALED
WITH SILICON OR BUTYL SEALANT TO PREVENT
EXHAUST FUMES FROM ENTERING THE VEHICLE!**



 **DANGER** 
**INSPECT FOR FUEL TANK, FUEL LINES, BRAKE LINES, HIGH
VOLTAGE BATTERIES AND ELECTRICAL LINES PRIOR TO
DRILLING TO AVOID DAMAGING CRITICAL VEHICLE SYSTEMS
OR INJURY TO INSTALLER DURING INSTALLATION PROCESS!**



 **CAUTION** 
**TO AVOID DAMAGING THE VEHICLE ALWAYS
USE DRILL STOPS WHEN DRILLING ANY IN-
STALLATION HOLES!**



- IMPORTANT WARRANTY REQUIREMENTS -

1. SUBSTITUTING ADRIAN STEEL SPECIFIED FASTENERS FOR ASSEMBLY AND/OR INSTALLATION WILL VOID YOUR PRODUCT WARRANTY.
2. ALL HOLES DRILLED INTO VEHICLE SHOULD HAVE THE RAW METAL EDGES SEALED WITH A SELF-ETCHING PRIMER TO RESIST CORROSION AND POTENTIAL FASTENER POINT FAILURE.
3. ALL FASTENERS USED IN THE INSTALLATION OF THIS PRODUCT SHOULD BE TIGHTENED TO THE TORQUE(S) SPECIFIED IN THESE INSTRUCTIONS.
4. THESE INSTRUCTIONS SHOULD BE KEPT WITH THE VEHICLE.

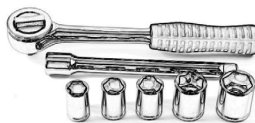
THE BASIC TOOLS NEEDED FOR MOST INSTALLATIONS



DRILL



DRILL BIT WITH
STOP



RATCHET, SOCKETS
AND/OR WRENCHES



SCREWDRIVERS



MEASURING TAPE

ADDITIONAL TOOLS MAY BE NEEDED FOR THIS INSTALLATION AND THEY WILL BE IDENTIFIED IN THE STEPS THAT FOLLOW.



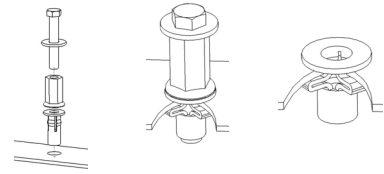
A PLUSNUT (RIVNUT) SETTING TOOL IS REQUIRED FOR PLUSNUT (RIVNUT) INSTALLATION AND IS NOT SUPPLIED WITH THIS KIT. ORDER PLUSNUT TOOLS FROM ADRIAN STEEL (P.N. 22200-0) OR USE AN AIR POWERED PLUSNUT SETTING GUN.

1/4-20UNC Plusnut (FAS0052) Use 3/8" dia. drill w/stop

FAS0080 SCREW, HXHD, 1/4-20UNCx2.00", G8
 FAS0067 WASHER, FLAT, 1/4"ID
 22200-0 PLUSNUT TOOL

5/16-18UNC Plusnut (FAS0091) Use 1/2" dia. drill w/stop

FAS0095 SCREW, HXHD, 5/16-18UNCx2.00", G8
 FAS0086 WASHER, FLAT, 5/16"ID
 22200-0 PLUSNUT TOOL

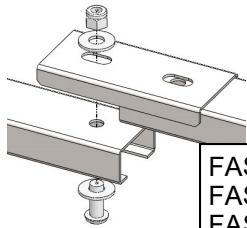


Place barrel of the plusnut body in sheet metal thru hole until flange is flush with sheet metal.

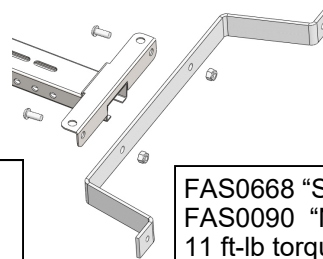
Using a 9/16" combination wrench of plusnut tool body and a second hand wrench, ratchet, or air tool, rotate the hex bolt head CW to draw plus nut flanges up (set the plusnut).

Step 01

Secure the Front Rail (39496-G) to the Base Rail Weldment (40375-G) using the fasteners specified. Next secure the Mounting Angle Bracket (39488-G) to the Base Rail Weldment using the fasteners specified.



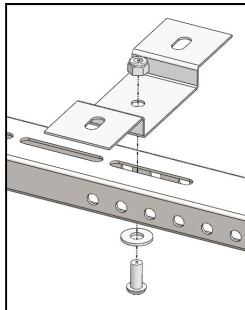
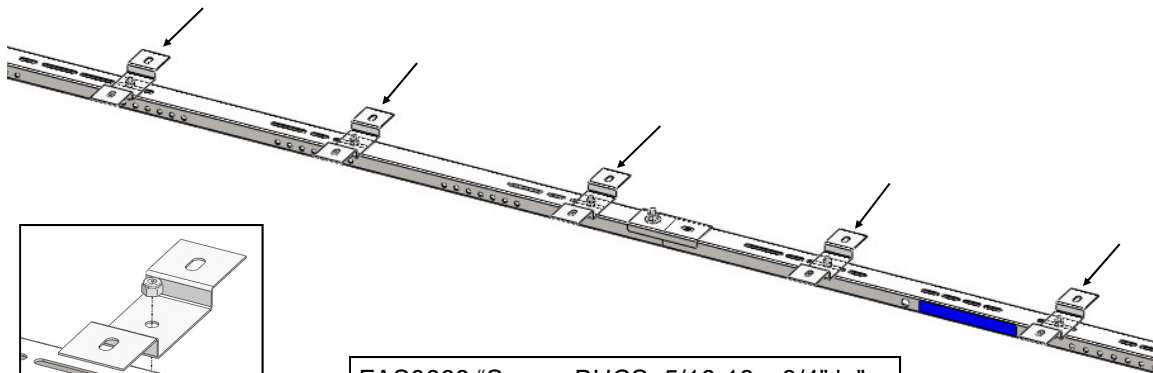
FAS0572 "Screw, BHCS, 3/8-16x1"
 FAS0104 "Washer, Flat, 3/8"ID, ZN"
 FAS0110 "Nut, Nylock, 3/8-16UNC"
 18 ft-lb torque (+/- 2 ft-lbs)



FAS0668 "Screw, BHCS, 5/16-16 x 3/4"
 FAS0090 "Nut, Nylock, 5/16-18UNC"
 11 ft-lb torque (+/- 2 ft-lbs) (2 places)

Step 02

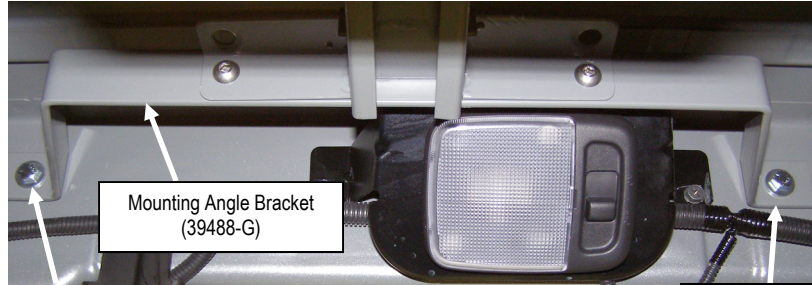
Secure the five Roof Mounting Brackets (40466-G) to the Front and Base Rail Weldments previously assembled in step number (01) above using the fasteners specified in detail views below. Do not fully tighten at this time.



FAS0668 "Screw, BHCS, 5/16-18 x 3/4" lg"
 FAS0112 "Washer, Flat, 5/16"ID, ZN"
 FAS0090 "Nut, Nylock, 5/16-18UNC"
 18 ft-lb torque (+/- 2 ft-lbs)

Step 03

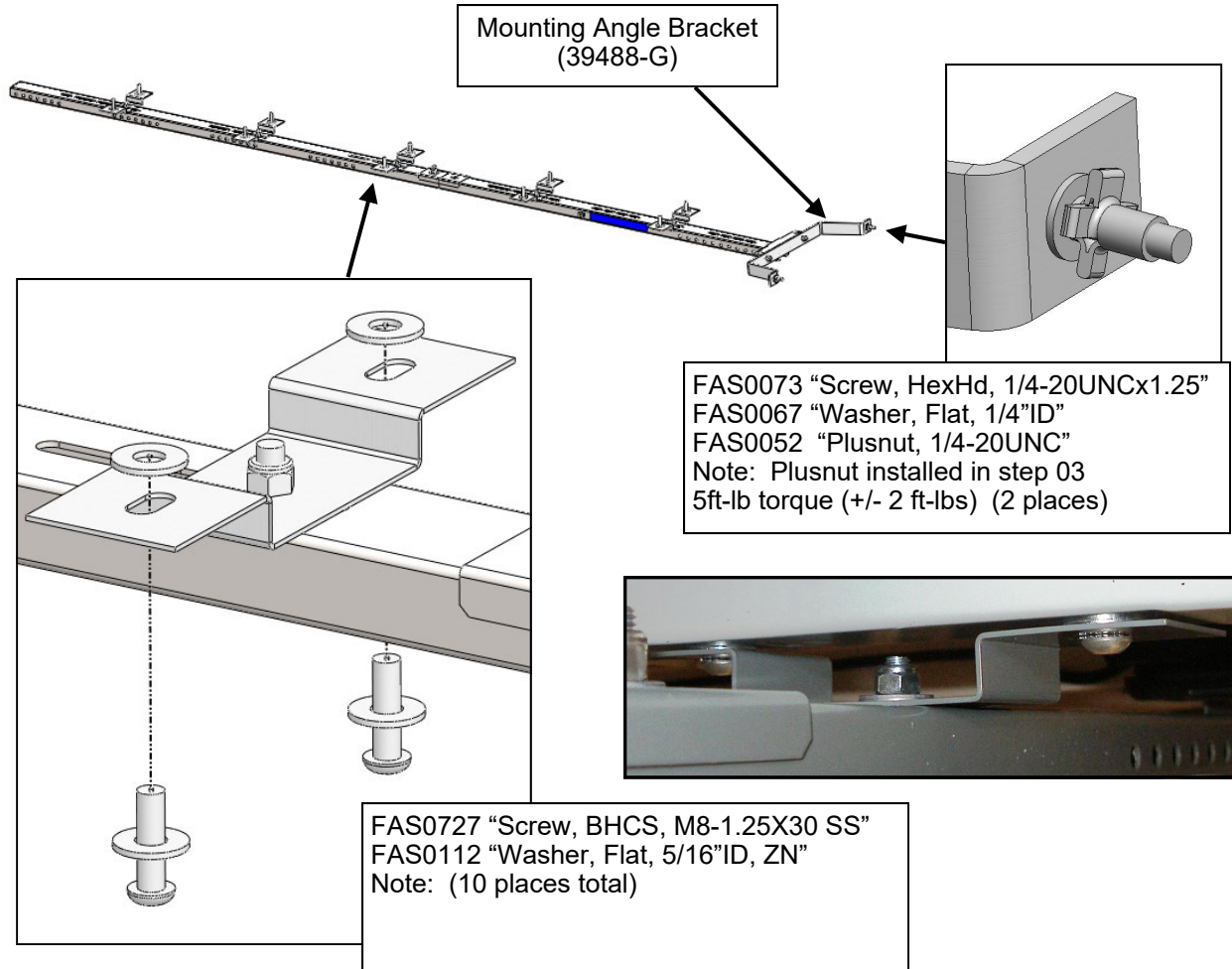
Position the completed Front/Rear Rail Weldments along centerline of cargo area roof section. Position the Rear Mounting Bracket to contact rear header sheet metal of the rear cargo access doors. Align slots in (5) roof mounting holes with the OEM mounting rivnuts located in the OEM roof bows. Mark the mounting holes in the rear cargo door header panel. Set rail assembly aside at this time and install two 1/4-20UNC plusnuts (FAS0052) per instructions at beginning of these instructions.



Brkt Plusnut (1/4-20UNC) location OEM Rear Cargo Lamp location Brkt Plusnut (1/4-20UNC) location

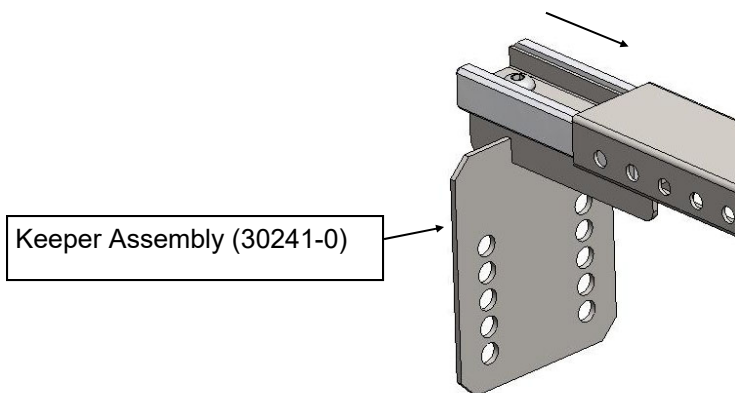
Step 04

Reposition the Front/Rear Rail Weldments and secure Rear Mounting Bracket to the rear header sheet metal plusnuts previously installed from Step 03. Align the five Roof Bow Mtg Brackets with the OEM roof bow rivnuts and secure with the fasteners listed below. Tighten the rear mounting bracket fasteners first and then the remaining five roof bow mounting brackets.



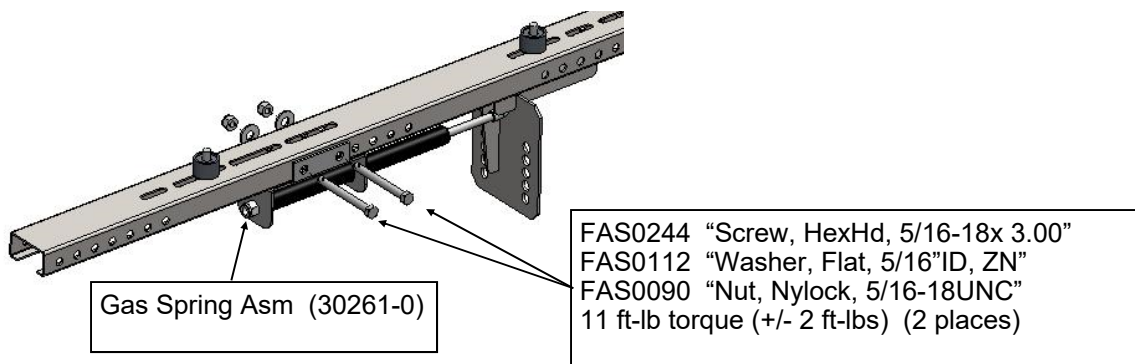
Step 05

Position the Keeper Assembly (30241-0) at the front of the installed Front/Base Rail/Mtg Bracket (fr: Step 03) and slide the Keeper assembly into the rail subassembly.



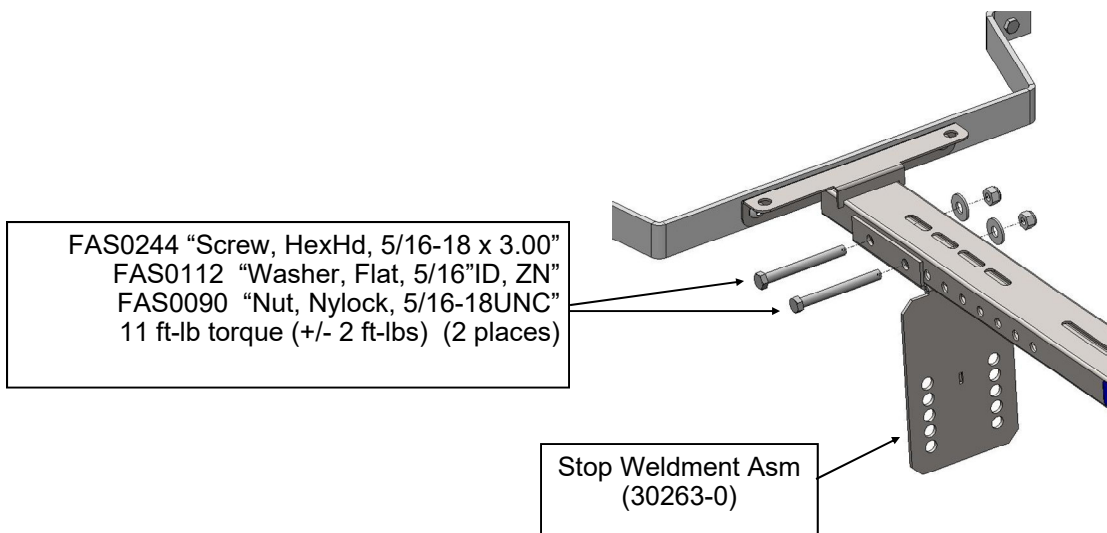
Step 06

Position the Gas Spring Asm (30261-0) at the front of the installed Front/Base Rail/Mtg Bracket (fr: Step 03) and secure the gas spring assembly to the front rail section with the fasteners listed. Do not fully tighten fasteners.



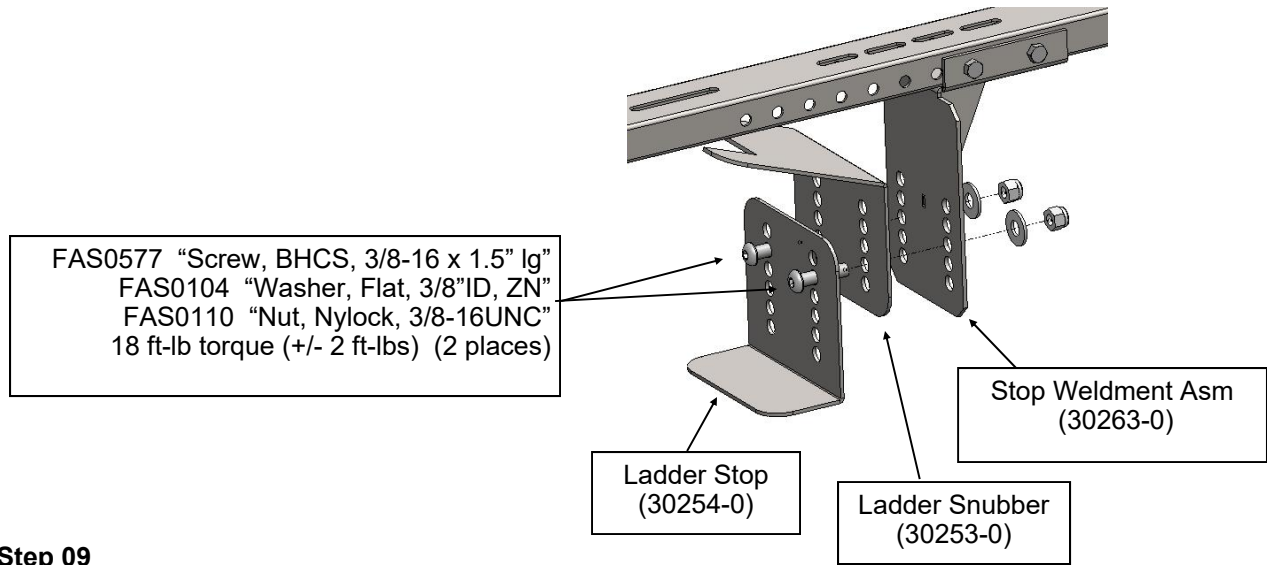
Step 07
close as

Position the Stop Weldment Asm (30263-0) as possible to the rear cargo door header and attached to the rear base rail weldment as shown below. Do not fully tighten fasteners.



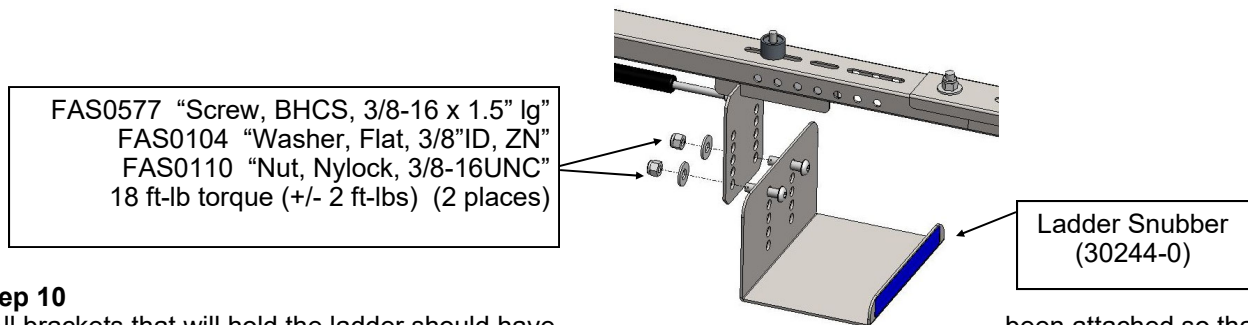
Step 08

Position the Ladder Snubber (30253-0), Ladder Stop (30254-0) against the Stop Weldment (fr: Step 06) Do not full tighten fasteners.



Step 09

Position the Ladder Keeper (30244-0) to the Keeper Asm (30241-0) Do not full tighten fasteners.



Step 10

All brackets that will hold the ladder should have the fasteners were not fully tightened. This was done to make final adjustments for you particular ladder easier. To adjust for the length of your ladder, first adjust the placement of the Gas Spring Asm (Step 5, PP 5). If further adjustment needs to be made, move the location of the Stop Weldment (Step 6, PP 5). Please make sure there is proper clearance for the rear cargo door to close without the legs of the ladder contacting the door panels and/or glass windows.

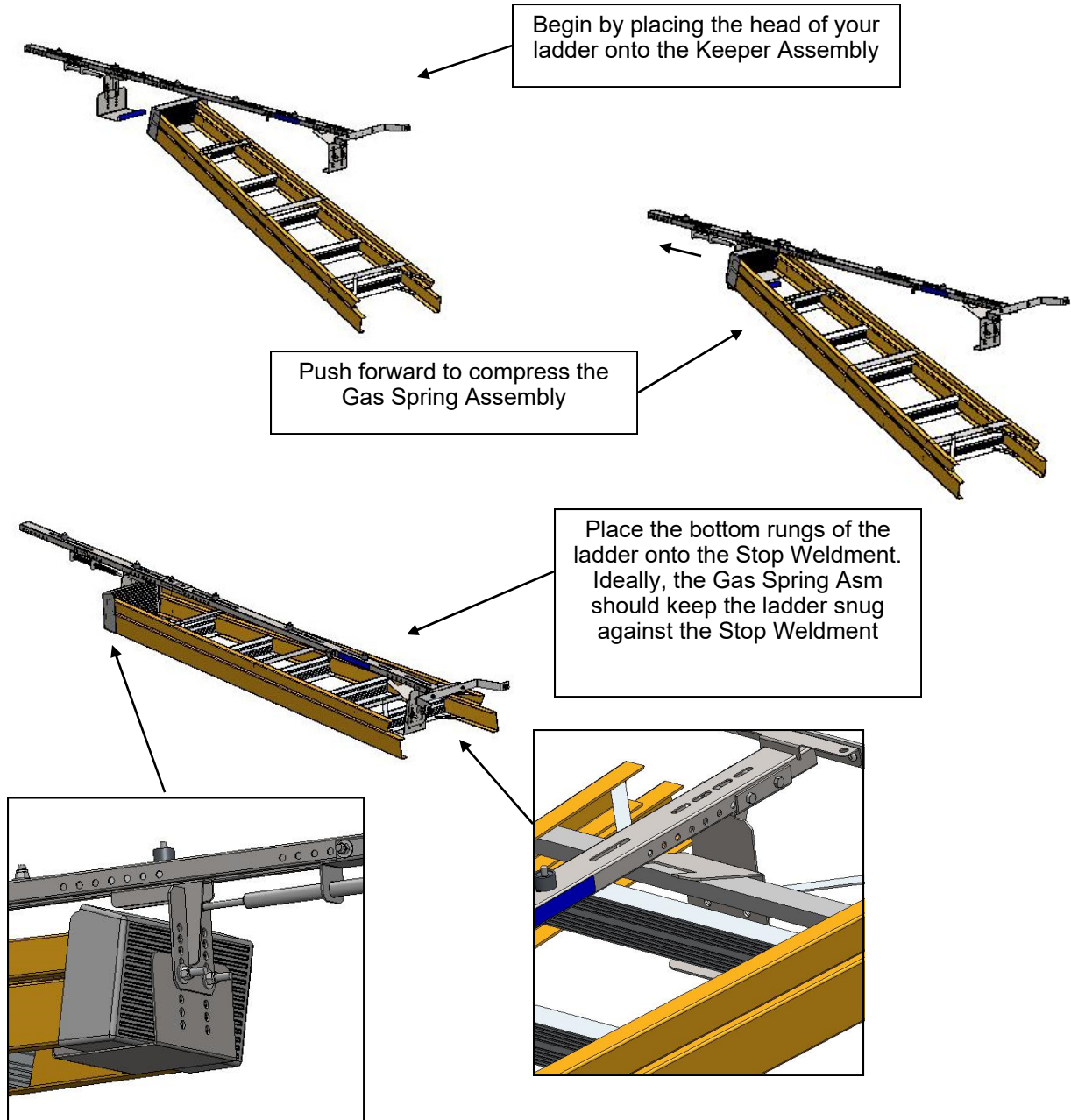
Additional adjustments should be made to enclose the head and bottom ladder rungs within the front and back ladder brackets. Adjust the Ladder Keeper to fully accommodate the head of your ladder (Step 8", PP 6). Then adjust the Ladder Snubber & Ladder Stop (Step 7, PP 6) to fully enclose the bottom rungs of your ladder.

The ladder should now be held securely by the LKLCV. You may now fully tighten all fasteners to there recommended torque specifications.

Note:

It is advised that all fasteners used in this assembly and installation of this ladder rack system should be checked for tightness at the following intervals: @ 2-weeks and again @ 6-weeks of operation. This preventive maintenance step must be completed to ensure your ladder rack system gives you long service life.

Step 11 "Loading your ladder in the LKLCV"



Step 12 "Un-loaded LKLCV"

When no ladder is being held by the LKLCV, a hand knob (16274-0) is provided to prevent the Ladder Keeper from sliding back and forth during normal driving conditions. Slide the Ladder Keeper toward the fixed Stop Weldment Asm and position as shown at right. Secure in place by tightening the hand knob to prevent the Ladder Keeper from sliding during vehicle operations.

